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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,707	02/05/2002	Alain Houle	CISCP730	1909

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EXAMINER	
KIM, DAVID S	

ART UNIT	PAPER NUMBER
2633	

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/072,707	Applicant(s) HOULE ET AL.	
	Examiner David S. Kim	Art Unit 2633	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 28 November 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☒ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: *See Continuation Sheet*. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: *none*.
   Claim(s) objected to: *none*.
   Claim(s) rejected: *1-7,9-14,16,18-25 and 27-33*.
   Claim(s) withdrawn from consideration: *none*.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☒ Other: See Continuation Sheet.

Continuation of 3. NOTE:
Applicant's amendments to claims 2, 10, 18-19, and 28-30 introduce new matter. In particular, notice that they introduce a particular coding scheme to a particular "first" signal in the embodiment of Applicant's invention that employs error correction coding on multiple data signals. Although Applicant's disclosure does introduce the use of a particular coding scheme (Reed-Solomon, G.975, G.709 in p. 9+) on a particular "first" signal (middle signal in Fig. 2), this usage of a particular coding scheme is only disclosed for an embodiment of Applicant's invention that employs error correction coding on only one data signal (embodiment in Fig. 2), not multiple data signals (embodiment in Figs. 4A-4B). Applicant's disclosure does not disclose the use of a particular coding scheme (such as Reed-Solomon coding, standard G.975 coding, or standard G.709 coding) in the embodiment of the invention that employs error correction coding on multiple data signals. Accordingly, as Applicant's amendments to claims 2, 10, 18-19, and 28-30 introduce these limitations that are not taught by Applicant's disclosure, these same amendments introduce new matter.

Furthermore, even if Applicant's disclosure did teach this subject matter, the standing rejections already apply a particular error correction coding to a particular "first" signal. For example, see the Reed-Solomon code references in the previous Office Action (mailed on 21 September 2005, p. 5, middle paragraph, p. 6, first paragraph reference to col. 8, l. 2-9 of Swanson). Thus, it is likely that Applicant's amendments to claims 2, 10, 18-19, and 28-30 would introduce subject matter that would be rejected in view of the standing rejections in the previous Office Action (mailed on 21 September 2005).

Continuation of 11. does NOT place the application in condition for allowance because:
Applicant's arguments, filed on 28 November 2005, with respect to the claim rejections under 35 U.S.C. 103(a) over Swanson, have been fully considered but are not persuasive. Applicant present two salient points.

Regarding the first point, Applicant states,

"First, the extensive teachings of Swanson et al. cited by the Examiner for upgrading channels work against the Examiner's position. The combinations and permutations of using FEC on channels are numerous. Nonetheless, not even a passing mention is made of the applicants' claimed invention" (filed on 28 November 2005, p. 10, 1st full paragraph).

Examiner does not understand how the number of "combinations and permutations of using FEC on channels" works against Examiner's position. In Examiner's perspective, the fact that "the combinations and permutations of using FEC on channel are numerous" means that there are many possible choices of coding schemes that are available to one of ordinary skill in the art. The wide number of choices allows one of ordinary skill in the art to take advantage of desirable features that are particular to different coding schemes in different transmission situations (e.g., Swanson, col. 7, l. 2-14, 20-25, 34-36, 51-57). It is not clear how the fact that "the combinations and permutations of using FEC on channel are numerous" works against Examiner's argument to "apply error correction coding to multiple data signals such that said one data signal experiences a greater coding gain than another data signal", especially when explicit purposes of Swanson's teachings include the upgrading of channels (Swanson, col. 3, l. 3-7, col. 6, l. 8) by applying these various error correction coding schemes (col. 7, l. 1 - col. 8, l. 21). Also, although a "passing mention" of Applicant's claimed invention is not made by Swanson, this observation is already implied by the fact that Swanson was applied in an obviousness rejection under 35 U.S.C. 103. Accordingly, Applicant's first point is not persuasive.

Regarding the second point, Applicant states,

"Secondly, the repeated cautionary language in the Swanson patent suggest that the Examiner is perhaps hasty in assuming what a person of ordinary skill in the art would be motivated to do or perhaps reflects impermissible hindsight of the applicants' invention. For example, immediately after the portion (col. 8, ll. 2-9) cited by the Examiner for upgrading a channel, Swanson et al. warn, 'However, other considerations come into play when a channel at rate R' which originally designed for rate R. Of particular concern are chromatic dispersion and polarization mode dispersion. The effects of dispersion in optical systems become more pronounced...'" (filed on 28 November 2005, p. 10, 1st full paragraph).

Examiner respectfully notes that this portion cited by Applicant also teaches a portion of Examiner's argument. That is, even though Applicant points out the warning nature of this portion of Swanson et al., this same portion concludes by suggesting a particular coding scheme to employ in an upgrading process, "Thus, in this situation, a concatenated convolutional and block code may be appropriate" (Swanson, col. 8, l. 17-18). That is, although Applicant may feel that Swanson et al. cautions against cavalier application of any coding teachings without consideration of effects such as chromatic dispersion and polarization mode dispersion, Swanson et al., nonetheless, teaches a particular coding scheme (i.e., concatenated convolutional and block code) that would be suitable in consideration of these effects. Coincidentally, Examiner's standing rejections rely on this same particular coding scheme (i.e., concatenated convolutional and block code as referenced through Swanson, col. 7, l. 34-50 on p. 5 of the Office Action mailed on 21 September 2005). Thus, although Examiner appreciates Applicant's concern and attention to the cautionary language in the Swanson patent, Examiner respectfully maintains that the standing rejections do rely on positive teachings and suggestions from Swanson so that the argument presented therein falls within the scope of what a person of ordinary skill in the art would have been reasonably motivated to do without impermissible hindsight of Applicant's invention. Accordingly, Applicant's second point is not persuasive.

Summarily, Applicant's arguments are not persuasive. Accordingly, Examiner respectfully maintains the standing rejections.

Continuation of 13. Other:
Applicant's response to the objection to the drawings in the previous Office Action (mailed on 21 September 2005) is noted and

appreciated. Applicant filed a new Fig. 1 on 28 November 2005. This drawing replacement sheet is approved. Although a drawing objection to Fig. 4A was presented in the previous Office Action, the explanation was inadvertently omitted. Examiner objects to Fig. 4A since the labels "OC-48" and "OC-192" are not supported in the specification for the embodiment shown in Fig. 4A. That is, Fig. 4A shows particular data rates, OC-48 and OC-192, for the embodiment that applies error correction coding to multiple data signals. However, the portion of the specification that discusses this embodiment (p. 8, l. 20-22) does not disclose the particular data rates of OC-48 and OC-192. As a remedy, Examiner respectfully suggests removing these labels from Fig. 4A.

M. R. Sedighian

M. R. SEDIGHIAN
PRIMARY EXAMINER

REPLACEMENT SHEET

Approved by DSK
01 DECEMBER 2005

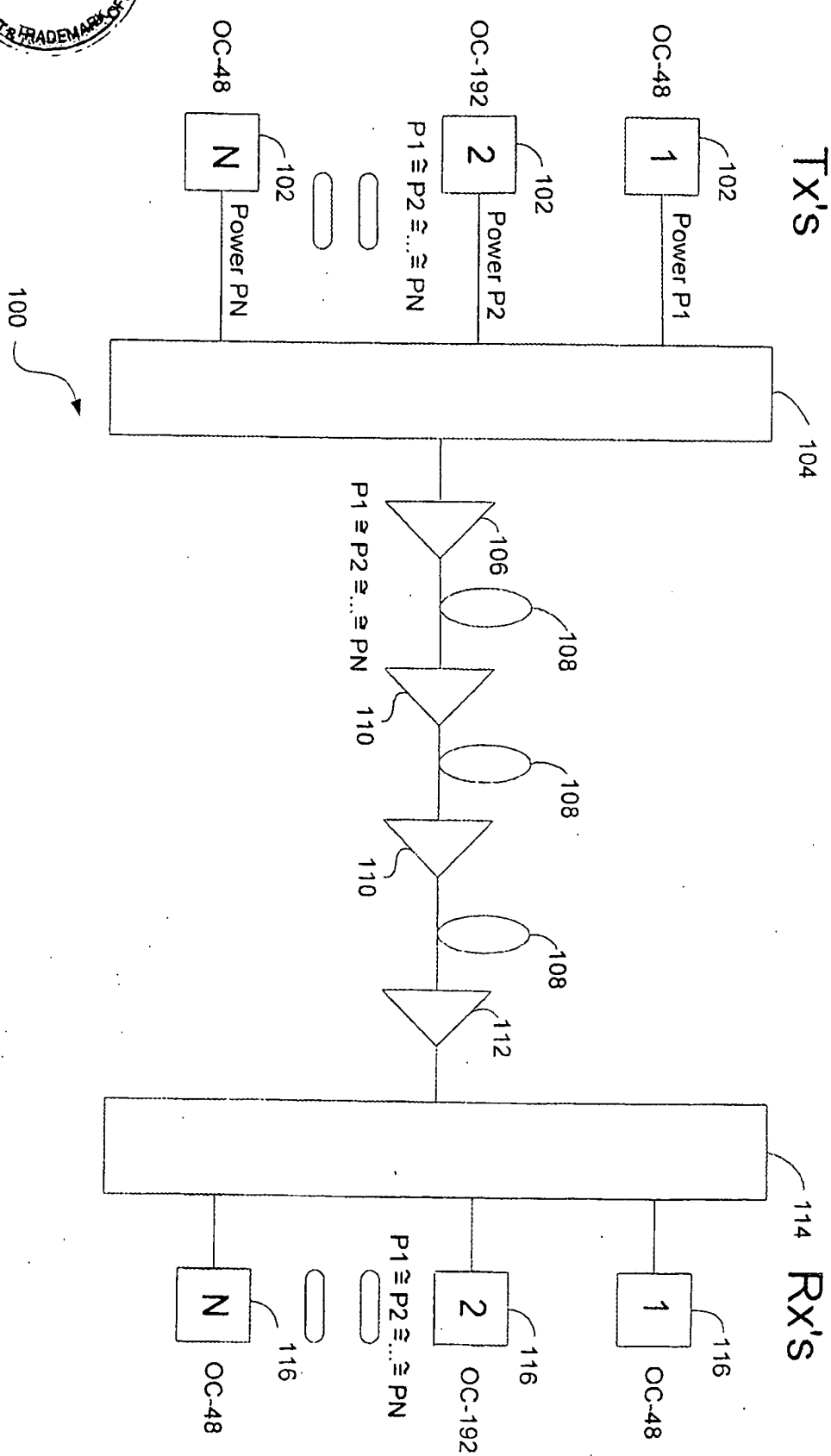

Fig. 1